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# Changing Dynamics in an Emerging Field: Tracking Authorship Developments in the Journal 'Political Psychology' 1985-2015

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## Introduction

The field of political psychology focuses on the explanation of political phenomena by using psychological theories and instruments. Researchers often rely on established psychological concepts from social, cognitive and personality psychology and apply them to the explanation of political issues (Houghton, 2014). Political psychology combines primarily political science and psychology, but also uses elements from sociology, social anthropology, and history (Houghton, 2014).

Although political psychology as such has only been institutionalized in the 1970s, when the International Society for Political Psychology (ISPP) was founded, the sub-discipline emerged predominantly in the United States and Europe in the late 1940s (e.g. Polo et al., 2015). In the last two decades, the field of political psychology has become increasingly popular, 642 journal articles indexed in Web of Science (WoS) contain 'political psychology' in the abstract, title or author keywords. About half of the articles each are classified as belonging to the WoS categories for psychology and political science (with International Relations). Most articles were published in the journal *Political Psychology*, which has been founded by the ISPP in 1979. Today it is among the top-20% journals in political science as well as social psychology.

Even though the field of political psychology shows a very positive trend for publication number development (Krampen, von Eye & Schui, 2011), it is still deemed an emerging field and bibliometric analyses of the discipline are scarce (e.g. Houghton, 2014). The only other study, that already took the journal *Political Psychology* in its focus, analyzed plainly download, submission, and citation numbers without focus on the temporal dimension, team dynamics and diversification. Our contribution focuses on trends in the field of political psychology and observes authorship developments from the beginning in 1979 up to 2015. We ask if these changes mirror developments in most disciplines (Waltman, 2012).

## Data & Methods

An in-house data base of the WoS is used. We queried all items published in the journal *Political*

*Psychology* between 1985 and 2015. However, the publication years 1979-1984 are missing in the data base and will be added manually at a later point. This results in a data set of 1,830 documents of which 1,011 are original articles in the time-span 1985 to 2015. Additionally, to determine the gender of authors, we applied a gender identification algorithm based on the names of authors. However, for the years before 2006, we mostly have initials and not full names. The algorithm identified 935 observations from 2006 to 2015, of which 801 unique authors of 435 unique articles were identified. A full set of first and last names for earlier publications will be added to the data set in the course of the research project.

We use US Social Security Administration data available in the R package 'gender'. Additionally, we use the package 'gender.c' to improve the identification algorithm for names only common in Europe. First names are only classified automatically if they were given to a single gender in 95 percent of cases in 1970.

## Preliminary Results

Teams play an increasingly important role in the production of many scientific disciplines (Larivière et al., 2014). However, top journals in political science and psychology vary when it comes to the development of authorship numbers: whereas in political science the average number of authors has increased from 1.5 to 1.9 the last 25 years (and the share of single authors dropped from 63% to 41%), numbers are higher in psychology (2.5 to 4.2 mean authors, 21% to 5% single authors) (Mayer, 2016).

The share of articles by single authors and teams follows a clear trend. While in 1985 almost 100% of articles were written by single authors, in 2015, this share has decreased to less than 50%. The proportion of articles written by a team may be volatile, but the trend is consistent. The number of authors per article ranges from 1 to 10 and has a mean of 1.55. In this sense, *Political Psychology* shows more similar developments to the field of political science.

The average size of author teams in *Political Psychology* increased by 50% from 2 in 1985 to 3 in 2015. A simple linear regression of the publication

year onto the team size supports the assumption that teams increase in size ( $\beta_{year} = 0.022$ ;  $t = 4.134$ ). When articles are written in collaboration, the rewards of the effort have to be shared among the contributors. In science, this is done mostly by the order of the author names in the article head. Basically, there are two ways to order the names; Author names can be ordered alphabetically, or in a non-alphabetical way, where usually author names are ordered by the amount of contribution to the article (Rauhut, Winter & Johann, 2018). Recently, the share of contribution-based authorship order has increased in most disciplines, but varies: In political science, still approximately 60% of the publications of teams are ordered alphabetically, whereas in psychology, this share is now below 49% (Waltman, 2012). Over the entire observational period only about 36% of the publications of teams are ordered alphabetically. Although this value is relatively volatile in some years, the trend is very steady. Thus, *Political Psychology* clearly differs from the norm in political science and authorship trends more tend towards the field of psychology.

With a Journal Impact Factor (JIF) of 2.089 in 2015, *Political Psychology* is among the top 20 journals in political science. Publications in high-impact journals are particularly important for career progression and the acquisition of third-party funding. However, ceteris paribus, female scholars tend to publish less than their male counterparts, especially in high-impact journals (Mayer & Rathmann, 2018). The development of women's involvement in publications in *Political Psychology* from 2006 to 2015 as the proportion of publications without the participation of at least one female scholar has some outliers, but fluctuates around 30%. The proportion of female authors also remains constant over the years. A linear regression shows that there is no statistically significant effect over time ( $\beta_{year} = 0.008$ ;  $t = 1.292$ ).

### Preliminary Conclusion

These preliminary results support the trend that science nowadays increasingly takes place in teams and that these teams are becoming larger. The share of single authors in the sample is continuously decreasing and the average team size is constantly increasing. Working in a team offers many advantages for scientists but can also create problems; scientists become dependent and are exposed to social team dynamics.

The number of alphabetically ordered articles in *Political Psychology* is clearly below average compared to political science. However, a changing trend is not discernible, even though the proportions fluctuate. When interpreting the data from the 1980s, it should be noted that there were still very few articles by teams, so these few articles are therefore particularly influential. Especially with small teams the 'illusion of equality' comes into play (Rauhut,

Winter & Johann, 2018), i.e. articles in alphabetical order do not have to be intentionally ordered alphabetically. The probability that non-intended alphabetically ordered articles are alphabetically ordered decreases exponentially with the number of authors. In political science, small teams are the norm, therefore a correction factor should be included in further research.

The proportion of female scientists publishing in *Political Psychology* could so far only be investigated for the period 2006 to 2015. Although the proportion of women among the authors in the journal has increased slightly, this growth is not statistically significant. Still, almost 70% of the authors in *Political Psychology* are male

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